

ABSTRACT

An electro-optical modulator is disclosed that has a microwave input chip with a thin film resistor or a lumped resistor located between an input RF connector and an RF electrode on a Lithium Niobate chip. The accessory connection chip has a broadband attenuator like a thin film resistor which is placed in a microstrip line for effecting the electrical transmission to Lithium Niobate chip. The insertion of the thin film resistor before the RF electrode lowers the electrical return loss value as a function of frequency, allowing a lower driving voltage design or a reduced chip length without degrading the performances.